1644

DOCKET NO.: L0461.70121US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Chiari et al.
Serial No.:	09/913,756
Confirmation No.:	5298
Filed:	18 February 2000 (18.02.00)
For:	TYROSINE KINASE RECEPTOR EPHA3 ANTIGENIC PEPTIDES
Examiner:	Vandervegt, Francois P.
Art Unit:	1644

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 5th day of January, 2005.

Kristin J. Ketelhut

MAIL STOP AMENDMENT
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents:

- Information Disclosure Statement
- PTO Form 1449 with cited references
- Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 646-8000, Boston, Massachusetts.

A check in the amount of $180 is enclosed to cover the filing fee. If the fee is insufficient, the balance may be charged to Deposit Account 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,

By: John R. Van Amsterdam

John R. Van Amsterdam, Reg. No.: 40,212
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
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Docket No.: L0461.70121US00
Date: January 4, 2005
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Kristin J. Katelhut

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

STATEMENT FILED PURSUANT TO THE DUTY OF DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

PART I: Compliance with 37 C.F.R. §1.97

This Information Disclosure Statement has been filed more than three months after the filing date of this application and after the mailing date of the first Office Action, but before the mailing date of either a final action under 37 C.F.R. §1.113 or a Notice of Allowance under 37 C.F.R. §1.311, or an action that otherwise closes prosecution in this application.

The fee of $180 as set forth in 37 C.F.R. §1.17(p) is enclosed.

PART II - Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references. The Applicant hereby makes the following additional information of record in the above-identified application.

The Applicant would like to bring to the Examiner's attention the enclosed search report from a corresponding International or Foreign National Application.

Serial No.	Mailing Date	Type of Communication	Docket No.
PCT/US00/04326	**29 June 2000**	**International Search Report**	**L0461.70057WO00**
PCT/US00/04326	**13 June 2001**	**International Preliminary Examination Report**	**L0461.70057WO00**

PART III: Remarks

A copy of each of the above-identified information is enclosed unless otherwise indicated on the attached form PTO-1449 (modified). It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;

2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;

3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

Serial No.: 09/913,756 Art Unit: 1644
Conf. No.: 5298

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

By: _____

John R. Van Amsterdam, Reg. No. 40,212
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2211
Telephone: (617) 646-8000

Docket No. L0461.70121US00
Date: January 4, 2005
xNDDx

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 09/913,756	DOCKET NO.: L0461.70121US00
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	IN'TL. FILING DATE: 02/18/00	Confirmation No.: 5298
	APPLICANT: Chiari, et al.	
Sheet 1 of 3	GROUP ART UNIT: 1644	EXAMINER: Vandervegt, F.

U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	A1	5,342,774		Boon et al.	08-30-1994

FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	B1	WO	93/00425	A1	The Walter and Eliza Hall Institute of Medical Research	07-01-1993	
	B2	WO	95/25740	A1	Ludwig Institute for Cancer Research et al.	09-28-1995	
	B3	WO	97/11669	A2	The Government of the United States of America	04-03-1997	
	B4	WO	97/31017	A1	Ludwig Institute for Cancer Research et al.	08-28-1997	
	B5	WO	99/14326	A1	Ludwig Institute for Cancer Research et al.	03-25-1999	

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C1	ANDERSON et al., Unified nomenclature for Eph family receptors and their ligands, the ephrins. Eph Nomenclature Committee. Cell. 1997 Aug 8;90(3):403-4.	
	C2	AVANZI et al., M-07e human leukemic factor-dependent cell line provides a rapid and sensitive bioassay for the human cytokines GM-CSF and IL-3. J Cell Physiol. 1990 Dec;145(3):458-64.	
	C3	BOYD et al., Isolation and characterization of a novel receptor-type protein tyrosine kinase (hek) from a human pre-B cell line. J Biol Chem. 1992 Feb 15;267(5):3262-7. (XP-000615518)	
	C4	BRICHARD et al., A tyrosinase nonapeptide presented by HLA-B44 is recognized on a human melanoma by autologous cytolytic T lymphocytes. Eur J Immunol. 1996 Jan;26(1):224-30.	
	C5	CHAUX et al., Identification of MAGE-3 epitopes presented by HLA-DR molecules to CD4(+) T lymphocytes. J Exp Med. 1999 Mar 1;189(5):767-78.	
	C6	CHIARI et al., Identification of a tumor-specific shared antigen derived from an Eph receptor and presented to CD4 T cells on HLA class II molecules. Cancer Res. 2000 Sep 1;60(17):4855-63.	
	C7	CHICZ et al., Specificity and promiscuity among naturally processed peptides bound to HLA-DR alleles. J Exp Med. 1993 Jul 1;178(1):27-47.	
	C8	CONNOR et al., Genomic organization and alternatively processed forms of Cek5, a receptor protein-tyrosine kinase of the Eph subfamily. Oncogene. 1995 Dec 7;11(11):2429-38.	
	C9	COULIE et al., Antigens recognized on human tumors by cytolytic T lymphocytes: towards vaccination? Stem Cells. 1995 Jul;13(4):393-403.	
	C10	DE PLAEN et al., Structure, chromosomal localization, and expression of 12 genes of the MAGE family. Immunogenetics. 1994;40(5):360-9. (SP000614537)	
	C11	DOTTORI et al., Cloning and characterization of EphA3 (Hek) gene promoter: DNA methylation regulates expression in hematopoietic tumor cells. Blood. 1999 Oct 1;94(7):2477-86. (XP-000907581)	
	C12	ENGELHARD, Structure of peptides associated with class I and class II MHC molecules. Annu Rev Immunol. 1994;12:181-207.	
	C13	GILBERT et al., A protein particle vaccine containing multiple malaria epitopes. Nat Biotechnol. 1997 Nov;15(12):1280-4.	

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Sheet 2 of 3		

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C14	HEIDECKER et al., Cytolytic T lymphocytes raised against a human bladder carcinoma recognize an antigen encoded by gene MAGE-A12. J Immunol. 2000 Jun 1;164(11):6041-5. (XP002173646)	
	C15	HERMAN et al., A peptide encoded by the human MAGE3 gene and presented by HLA-B44 induces cytolytic T lymphocytes that recognize tumor cells expressing MAGE3. Immunogenetics. 1996;43(6):377-83.	
	C16	LACKMANN et al., Distinct subdomains of the EphA3 receptor mediate ligand binding and receptor dimerization. J Biol Chem. 1998 Aug 7;273(32):20228-37. (XP-00914515)	
	C17	LALLY et al., Unmasking cryptic epitopes after loss of immunodominant tumor antigen expression. *IN* Immunology 2000: The American Association of Immunologists and Clinical Immunology Society Joint annual meeting. Seattle, Washington, USA. May 12-16, 2000. Abstracts. FASEB J. 2000 Apr 20;14(6): A1005, Abstract No. 54.4. (XP002173648)	
	C18	LEHMANN et al., Differences in the antigens recognized by cytolytic T cells on two successive metastases of a melanoma patient are consistent with immune selection. Eur J Immunol. 1995 Feb;25(2):340-7.	
	C19	LI et al., IL-1 beta alters the expression of the receptor tyrosine kinase gene r-EphA3 in neonatal rat cardiomyocytes. Am J Physiol. 1998 Jan;274(1 Pt 2):H331-41. (XP-00913942)	
	C20	MEAZZA et al., Interleukin (IL)-15 induces survival and proliferation of the growth factor-dependent acute myeloid leukemia M-07e through the IL-2 receptor beta/gamma. Int J Cancer. 1998 Oct 5;78(2):189-95.	
	C21	NAKANO et al., Positive selection of T cells induced by viral delivery of neopeptides to the thymus. Science. 1997 Jan 31;275(5300):678-83.	
	C22	PANELLI et al., A tumor-infiltrating lymphocyte from a melanoma metastasis with decreased expression of melanoma differentiation antigens recognizes MAGE-12. J Immunol. 2000 Apr 15;164(8):4382-92. (XP002173647)	
	C23	PARKER et al, Scheme for ranking potential HLA-A2 binding peptides based on independent binding of individual peptide side-chains. J Immunol. 1994 Jan 1;152(1):163-75.	
	C24	PIEPER et al., Biochemical identification of a mutated human melanoma antigen recognized by CD4(+) T cells. J Exp Med. 1999 Mar 1;189(5):757-66.	
	C25	RAMMENSEE et al., MHC ligands and peptide motifs: first listing. Immunogenetics. 1995;41(4):178-228. (XP000673045)	
	C26	SAJJADI et al., Identification of a new eph-related receptor tyrosine kinase gene from mouse and chicken that is developmentally regulated and encodes at least two forms of the receptor. New Biol. 1991 Aug;3(8):769-78. (XP-00920929)	
	C27	SANDERSON et al., Expression of endogenous peptide-major histocompatibility complex class II complexes derived from invariant chain-antigen fusion proteins. Proc Natl Acad Sci U S A. 1995 Aug 1;92(16):7217-21.	
	C28	STEIMLE et al., Complementation cloning of an MHC class II transactivator mutated in hereditary MHC class II deficiency (or bare lymphocyte syndrome). Cell. 1993 Oct 8;75(1):135-46.	
	C29	TAM et al., Incorporation of T and B epitopes of the circumsporozoite protein in a chemically defined synthetic vaccine against malaria. J Exp Med. 1990 Jan 1;171(1):299-306.	
	C30	TANG et al., A variant transcript encoding an isoform of the human protein tyrosine kinase EPHB2 is generated by alternative splicing and alternative use of polyadenylation signals. Oncogene. 1998 Jul 30;17(4):521-6.	
	C31	THOMSON et al., Targeting a polyepitope protein incorporating multiple class II-restricted viral epitopes to the secretory/endocytic pathway facilitates immune recognition by CD4+ cytotoxic T lymphocytes: a novel approach to vaccine design. J Virol. 1998 Mar;72(3):2246-52.	

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	C32	THOMSON et al., Minimal epitopes expressed in a recombinant polyepitope protein are processed and presented to CD8+ cytotoxic T cells: implications for vaccine design. Proc Natl Acad Sci U S A. 1995 Jun 20;92(13):5845-9.	
	C33	THOMSON et al., Recombinant polyepitope vaccines for the delivery of multiple CD8 cytotoxic T cell epitopes. J Immunol. 1996 Jul 15;157(2):822-6.	
	C34	TOPALIAN et al., Melanoma-specific CD4+ T cells recognize nonmutated HLA-DR-restricted tyrosinase epitopes. J Exp Med. 1996 May 1;183(5):1965-71.	
	C35	TOPALIAN, MHC class II restricted tumor antigens and the role of CD4+ T cells in cancer immunotherapy. Curr Opin Immunol. 1994 Oct;6(5):741-5.	
	C36	TRAVERSARI et al., Transfection and expression of a gene coding for a human melanoma antigen recognized by autologous cytolytic T lymphocytes. Immunogenetics. 1992;35(3):145-52.	
	C37	VAN DEN EYNDE et al., New tumor antigens recognized by T cells. Curr Opin Immunol. 1995 Oct;7(5):674-81.	
	C38	VAN DEN EYNDE et al. A new family of genes coding for an antigen recognized by autologous cytolytic T lymphocytes on a human melanoma. J Exp Med. 1995 Sep 1;182(3):689-98.	
	C39	VAN DER BRUGGEN et al., A gene encoding an antigen recognized by cytolytic T lymphocytes on a human melanoma. Science. 1991 Dec 13;254(5038):1643-7.	
	C40	VAN DER BRUGGEN et al., A peptide encoded by human gene MAGE-3 and presented by HLA-A2 induces cytolytic T lymphocytes that recognize tumor cells expressing MAGE-3. Eur J Immunol. 1994 Dec;24(12):3038-43.	
	C41	WANG et al., Cloning genes encoding MHC class II-restricted antigens: mutated CDC27 as a tumor antigen. Science. 1999 May 21;284(5418):1351-4.	
	C42	WICKS et al., Molecular cloning of HEK, the gene encoding a receptor tyrosine kinase expressed by human lymphoid tumor cell lines. Proc Natl Acad Sci U S A. 1992 Mar 1;89(5):1611-5. (XP-000615502)	
	C43	WU et al., Engineering an intracellular pathway for major histocompatibility complex class II presentation of antigens. Proc Natl Acad Sci U S A. 1995 Dec 5;92(25):11671-5.	
	C44	YEE et al., Isolation of tyrosinase-specific CD8+ and CD4+ T cell clones from the peripheral blood of melanoma patients following in vitro stimulation with recombinant vaccinia virus. J Immunol. 1996 Nov 1;157(9):4079-86.	
	C45	ZISCH et al., Complex formation between EphB2 and Src requires phosphorylation of tyrosine 611 in the EphB2 juxtamembrane region. Oncogene. 1998 May;16(20):2657-70. (XP-000913940)	
	C46	GENBANK Submission; NIH/NCBI; Accession number M83941; Wicks et al.; 31 December 1994 (Last Submission).	

EXAMINER:	DATE CONSIDERED:

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

[NOTE - The Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC 371 after June 30, 2003. See 37 CFR 1.491(b). For all patent applications filed on or before June 30, 2003, copies of cited U.S. patents and patent application publications are still required unless an eIDS is filed. Copies of all other patent(s), publication(s), or other information listed must still be provided, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]